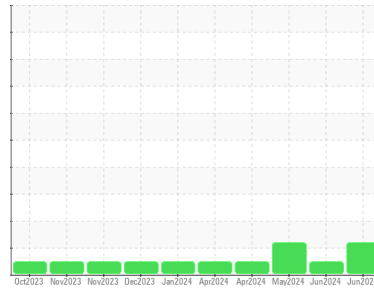




OIL ANALYSIS REPORT

Sample Rating Trend



DEGRADATION



Machine Id
834055
 Component
Natural Gas Engine
 Fluid
PETRO CANADA DURON GEO LD 15W40 (--- GAL)

DIAGNOSIS

Recommendation

The oil is near the end of its useful service life, recommend schedule an oil change. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The BN level is low.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0122897	GFL0122893	GFL0118791
Sample Date	Client Info		27 Jun 2024	18 Jun 2024	08 May 2024
Machine Age	hrs	Client Info	1456	1366	1170
Oil Age	hrs	Client Info	1366	1366	1170
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status			ABNORMAL	NORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	83	76	61
Chromium	ppm	ASTM D5185m >4	2	2	2
Nickel	ppm	ASTM D5185m >2	3	2	1
Titanium	ppm	ASTM D5185m	<1	0	0
Silver	ppm	ASTM D5185m >3	<1	<1	<1
Aluminum	ppm	ASTM D5185m >9	8	7	5
Lead	ppm	ASTM D5185m >30	5	3	2
Copper	ppm	ASTM D5185m >35	23	20	20
Tin	ppm	ASTM D5185m >4	4	3	3
Vanadium	ppm	ASTM D5185m	<1	0	0
Cadmium	ppm	ASTM D5185m	<1	0	0

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 50	5	8	8
Barium	ppm	ASTM D5185m 5	4	1	<1
Molybdenum	ppm	ASTM D5185m 50	68	63	57
Manganese	ppm	ASTM D5185m 0	16	15	13
Magnesium	ppm	ASTM D5185m 560	820	880	802
Calcium	ppm	ASTM D5185m 1510	1537	1547	1405
Phosphorus	ppm	ASTM D5185m 780	794	881	766
Zinc	ppm	ASTM D5185m 870	1037	1087	981
Sulfur	ppm	ASTM D5185m 2040	2150	2874	2596

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	25	25	24
Sodium	ppm	ASTM D5185m	7	8	7
Potassium	ppm	ASTM D5185m >20	10	7	2

INFRA-RED

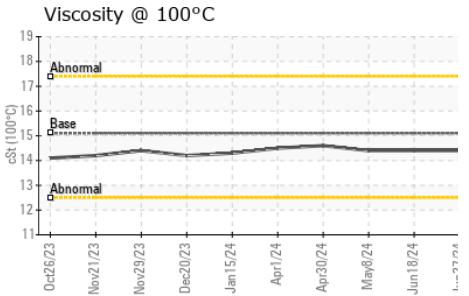
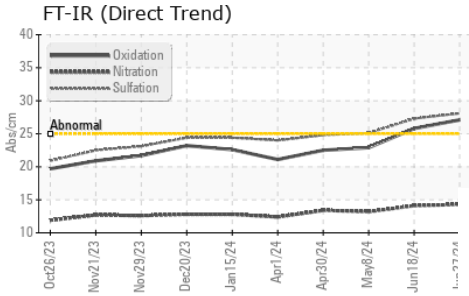
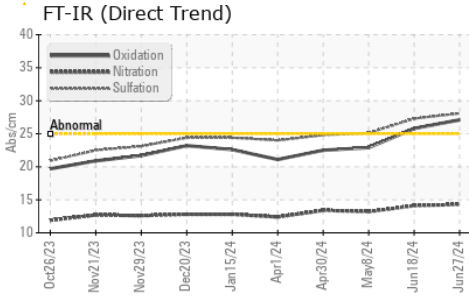
	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0.1	0	0.1
Nitration	Abs/cm	*ASTM D7624 >20	14.3	14.1	13.2
Sulfation	Abs/.1mm	*ASTM D7415 >30	28.1	27.3	25.1

FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	27.1	25.8	22.9
Base Number (BN)	mg KOH/g	ASTM D2896 10.2	▲ 2.5	3.2	▲ 2.8



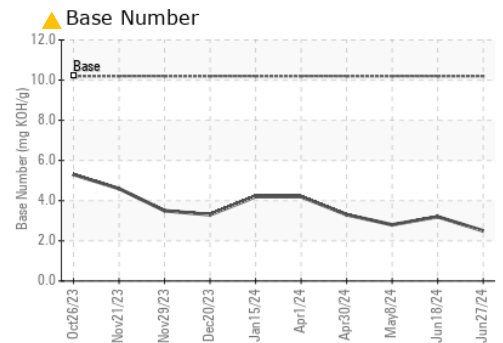
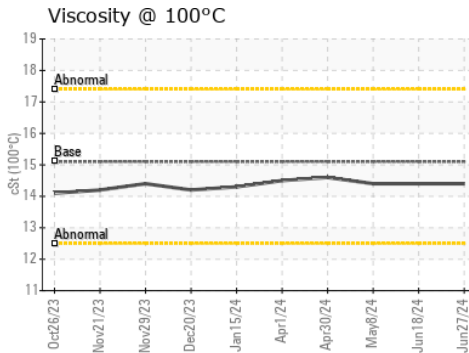
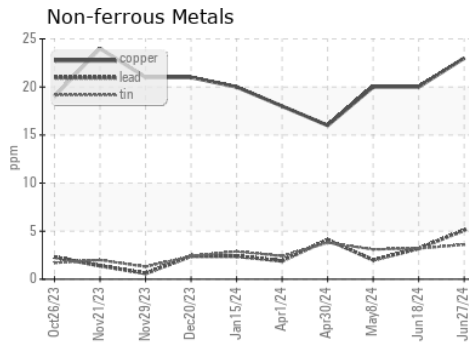
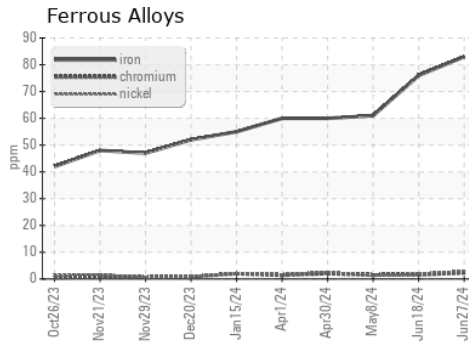
OIL ANALYSIS REPORT



PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

PARAMETER	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.1	14.4	14.4

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0122897
 Lab Number : 06225649
 Unique Number : 11103846
 Test Package : FLEET

Received : 01 Jul 2024
 Tested : 02 Jul 2024
 Diagnosed : 03 Jul 2024 - Don Baldrige

GFL Environmental - 837 - Harrison TS
 22820 S State Route 291
 Harrisonville, MO
 US 64701
 Contact: SARA PATRICK
 spatrack@gflenv.com

To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)